

What is claimed is:

1. A chain tensioner comprising:

a cylindrical housing with a closed end;

5 a plunger slidably fitted into the housing on an inner circumference of the housing;

a return spring for imparting outward projection ability to the plunger;

10 a plurality of engagement grooves formed on an outer circumference of the plunger;

a first stopper formed on the inner circumference of the housing; and

15 a register ring capable of elastically increasing and reducing its diameter, being engaged with the engagement grooves,

any of the engagement grooves being engaged with the first stopper through the register ring to regulate backward movement of the plunger, wherein

20 the register ring is formed of a steel material having a tensile strength of 1000 to 3500 N/mm².

2. The chain tensioner according to claim 1, wherein

an overlapping allowance of the register ring with respect to the engagement grooves of the plunger is set
25 within a range of 30 to 50% of a wire diameter of the

register ring, and a maximum bending stress of the register ring having an increased diameter, when it is positioned between the engagement grooves, is within a range of 500 to 1700 N/mm².

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3. The chain tensioner according to claim 1 or 2,
wherein

the register ring is formed of an oil-tempered wire.